Getting Serious about Energy

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South Carolina Energy Office

South Carolina Energy Office

Mission:

To increase energy efficiency and diversity,

enhance environmental quality and save energy dollars for South Carolina.

South Carolina Energy Office

Programs

- Energy Efficiency
- Energy Education and Outreach
- Renewable Energy
- Transportation Alternatives
- Energy Planning and Forecasting
- Radioactive Waste Disposal

New Legislation

Energy Efficiency – New Legislation

- H. 4766: Establishes energy efficiency goals for state agencies and public schools

Overview of H.4766

- State agencies & school districts to reduce energy use 1% annually for 5 years, beginning July 1, 2008
- Ultimate goal is 20% energy use reduction by 2020, from 2000 baseline

Overview of H.4766

- Specific requirements
  - Energy Conservation Plans
  - Annual Progress Reports
  - Annual Report to Legislature

Assistance from SC Energy Office

- steering committee
- workshops & training
- energy conservation plan assistance

Renewable Energy – New Legislation

- H.3395 Requires a net metering study
- H.4766 Creates a Wind Study Committee.

Renewable Energy – New Legislation

- Income tax credit - biomass
- Incentive payments - biomass
- Additional tax credits

Transportation – New Legislation

- Incentives for biofuels – production & purchase
- Tax credits for purchase of plug-in hybrids
- State government to give purchasing preference

Other Energy Initiatives

Climate, Energy and Commerce Advisory Committee (CECAC)

- established in 2007 by Governor Sanford

- **to develop an action plan containing specific recommended actions for mitigating greenhouse gas emissions**

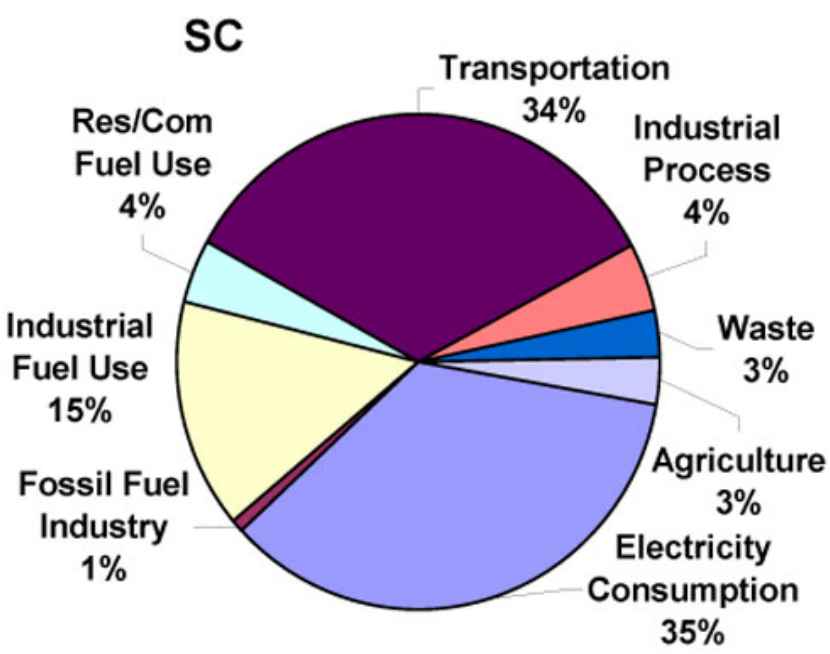
Climate, Energy and Commerce Advisory Committee (CECAC)

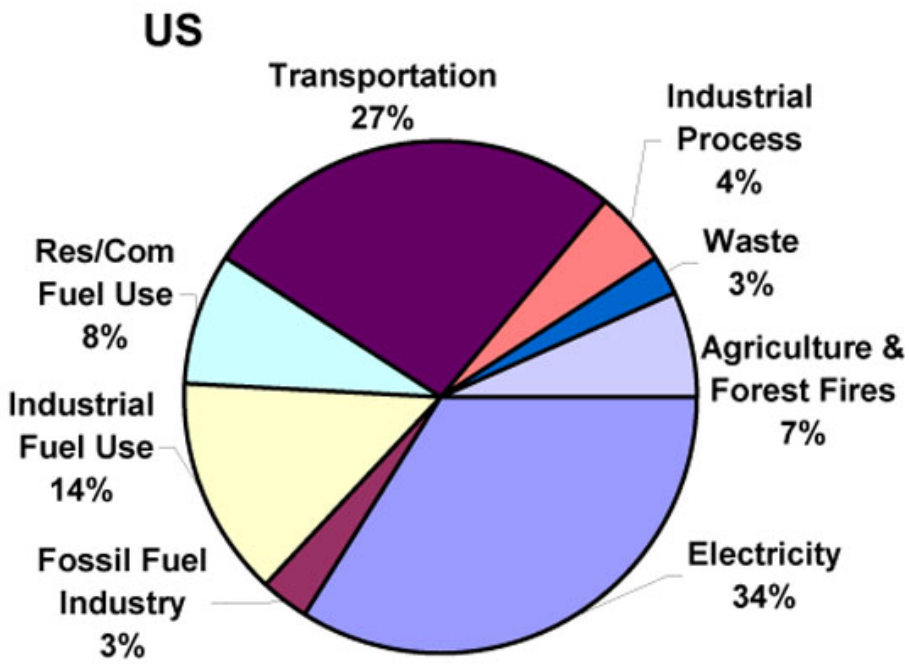
- representatives of broad range of stakeholders
- Technical Working Groups on various subjects
- full CECAC meetings

Climate, Energy and Commerce Advisory Committee (CECAC)

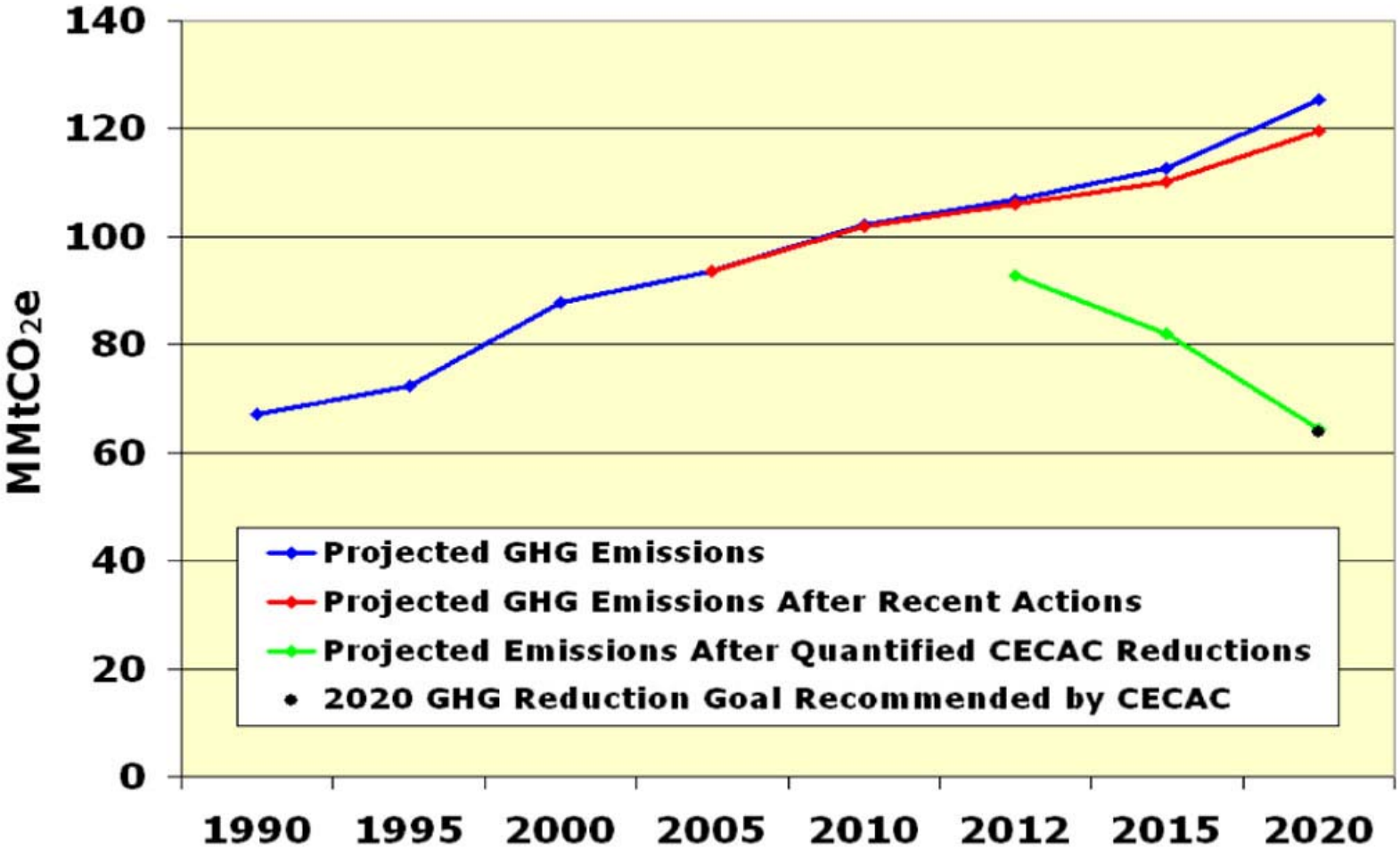
- final report – July 2008
  - 51 specific policies
  - voluntary goal to reduce GHG emissions to 5% below 1990 levels by 2020
  - evaluation of costs, savings, feasibility
  - comprehensive GHG inventory & forecast

Gross GHG emissions by sector, 2005: South Carolina and U.S.

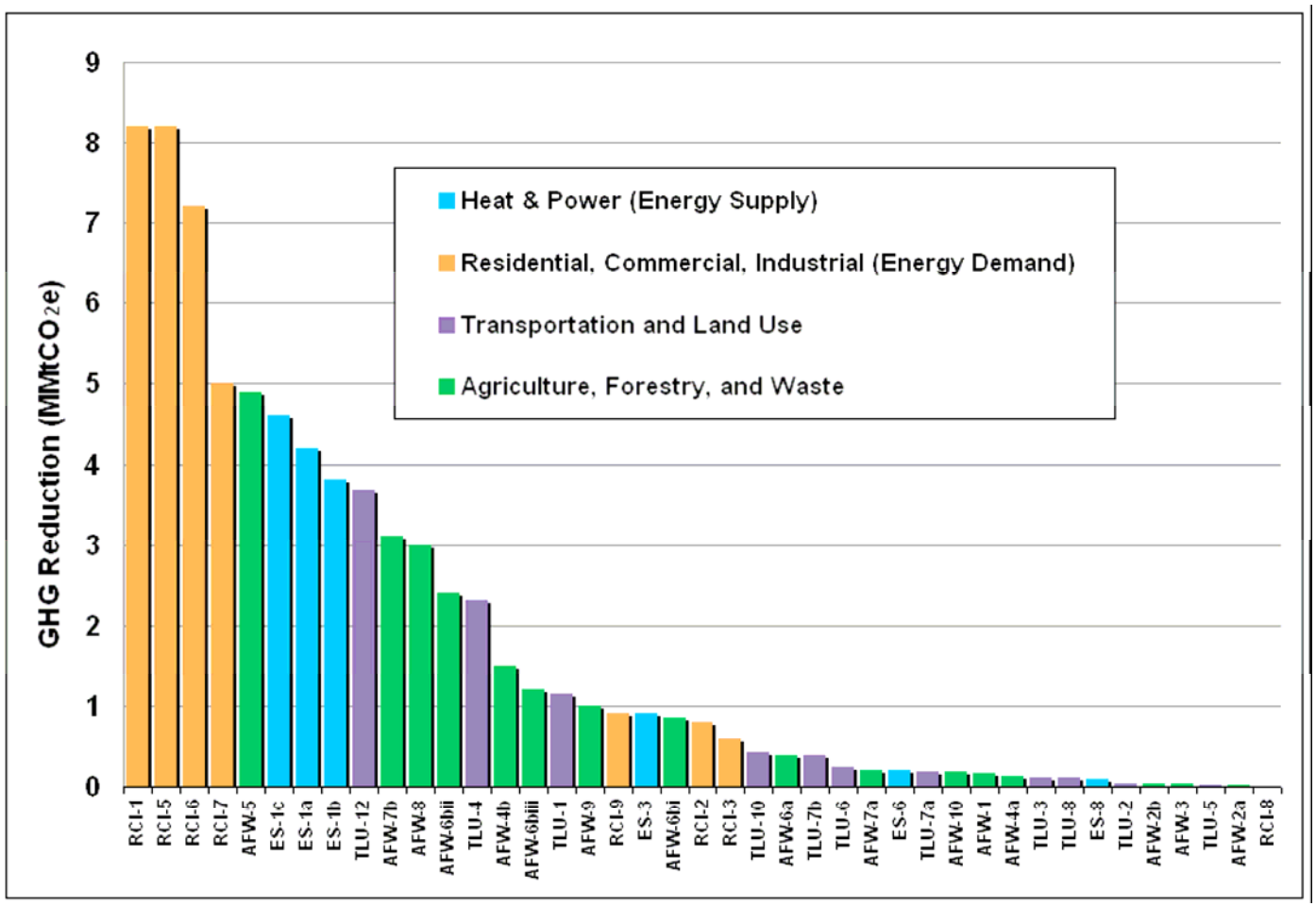


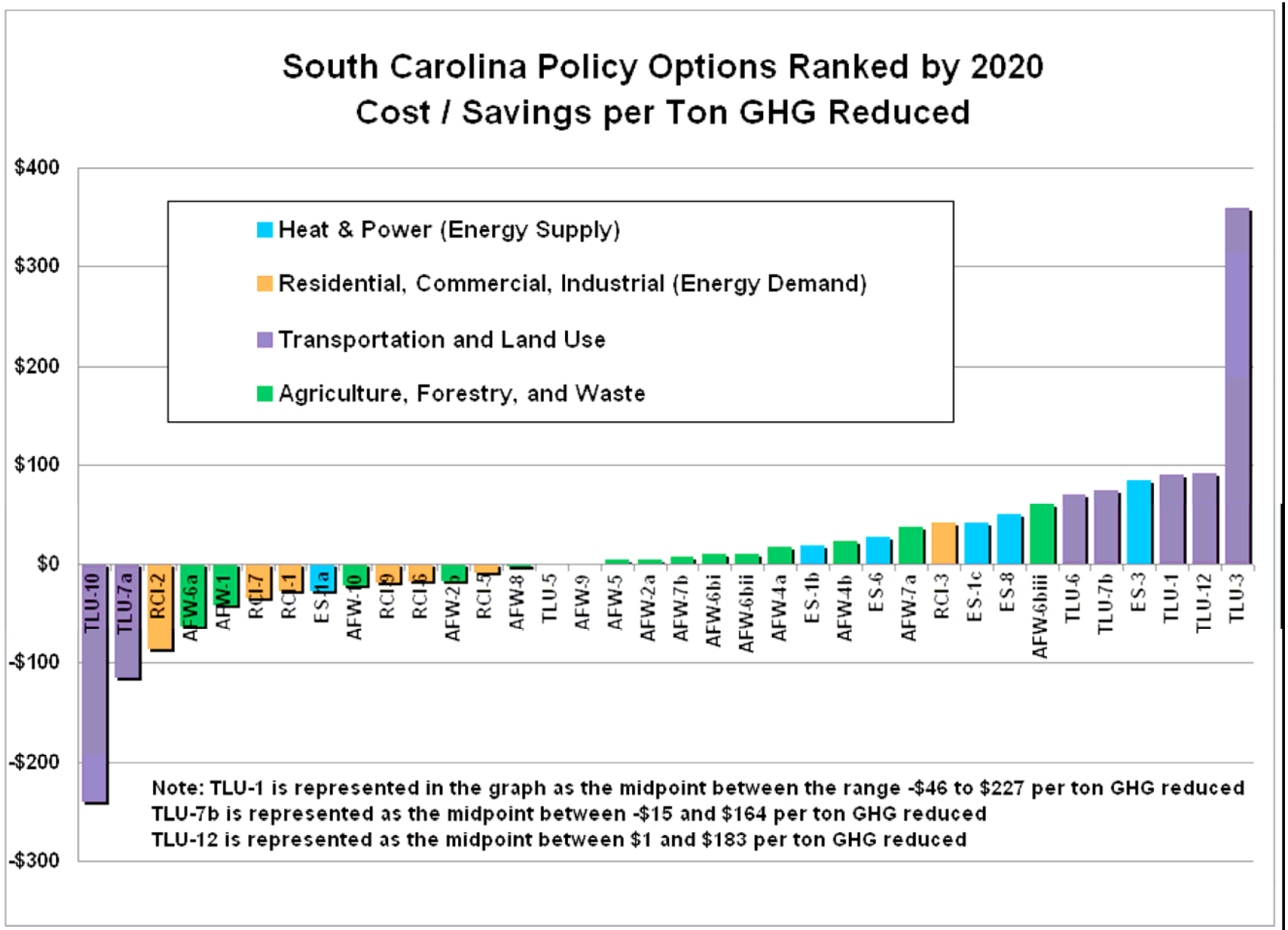


Annual GHG emissions: reference case projections and CECAC recommendations (consumption-basis, gross emissions)



CECAC policy recommendations ranked by 2020 annual GHG reduction potential




South Carolina Policy Options Ranked by 2020
Cost / Savings per Ton GHG Reduced
$400
$300
$200
$100
$0
-$100
-$200
-$300
Heat & Power (Energy Supply)
Residential, Commercial, Industrial (Energy Demand)
Transportation and Land Use
Agriculture, Forestry, and Waste
TLU-10
TLU-7a
RCI-2
AFW-6a
AFW-1
RCI-7
RCI-1
ES-1a
AFW-10
RCI-9
RCI-6
AFW-2b
RCI-5
AFW-8
TLU-5
AFW-9
AFW-5
AFW-2a
AFW-7b
AFW-6bi
AFW-6bii
AFW-4a
ES-1b
AFW-4b
ES-6
AFW-7a
RCI-3
ES-1c
ES-8
AFW-6biii
TLU-6
TLU-7b
ES-3
TLU-1
TLU-12
TLU-3
Note: TLU-1 is represented in the graph as the midpoint between the range -$46 to $227 per ton GHG reduced
TLU-7b is represented as the midpoint between -$15 and $164 per ton GHG reduced
TLU-12 is represented as the midpoint between $1 and $183 per ton GHG reduced

Green Power Programs

- Cleaner power
- Sustainable energy sources
- Economic benefits

Green Power Programs

PALMETTO
CLEAN ENERGY
SETTING THE PaCE FOR SOUTH CAROLINA'S FUTURE

What We Can Do

Energy savings – at the office

- **Lighting**
  - lights off
  - motion sensors
  - task lighting

Energy savings – at the office

- **Computers**
  - energy-saving mode
  - turn off
  - screen savers not the answer
  - inkjet versus laser printers
  - laptops vs desktops

ENERGY STAR Computer Power Management Savings Calculator

Quick Calculator - First Step in Taking the Pledge

(required fields in red)

Instructions: *Use this simple calculator to estimate typical savings from ENERGY STAR qualified computers and/or power management features. Your estimated savings from this calculator will transfer directly over to your pledge form on the blue "Pledge" ta*

ENERGY STAR Qualifed Computers and Monitors

Enter the number of ENERGY STAR qualified:	Desktop	Notebook
a) Computers used and/or to be used in place of standard computers	500	-
b) LCD monitors used and/or to be used in place of CRT monitors	500	

Power Management Features

Enter the number of desktops* and notebooks* that **are configured and/or will be configured** to automatically enter:	Desktop	Notebook
c) "Standby" or "hibernate" mode when inactive (i.e., CPU, hard drive, etc. go to sleep)	500	-
d) "Monitor shut down" mode when inactive (i.e., monitor/display goes to sleep)	500	-

Assumptions

e) Enter cost of electricity OR select the state in which the computers are operated, and choose commercial or residential service	$0.080
f) Roughly what percentage of your computers are currently turned off each night and during weekends, holidays and vacations by users?**	

Use Other Turn Off Rate?

Other Turn Off %

ENERGY STAR Computer Power Management Savings Calculator

How are your PCs used?

Instructions: *Enter information about your organization.*

a) How many hours in a typical workday in your organization?	8
b) How many days in a typical work week in your organization?	5
	22
c) How many non-working days per year are typical for your organization? E.g., vacation days, sick days, holidays, etc.?	
d) What (real) discount rate do you want to use in calculating 3-years savings?	4.0%

After completing this page, click the green "Results" tab below to view your estimated savings OR use the other red "Adjust" tabs below to perform customized calculations specific to your environment.

ENERGY STAR Computer Power Management Savings Calculator

Savings Estimate

	Energy Saved Annually (kWh)	Dollars Saved Annually	3-Year Totals			
			$ Savings	Pollution Prevented: CO2 (in tons)	Equivalent to: Acres of trees planted	Equivalent to: Number of cars removed
Total savings from ENERGY STAR qualified monitors & computers:	**41,518**	**$3,309**	**$9,183**	**96**	**20**	**16**
Total savings from monitor sleep mode:	191,030	$15,225	$42,251	440	91	73
Total savings from system standby and hibernate mode:	191,157	$15,235	$42,279	440	91	73
Total savings from monitor and computer sleep settings:	**382,187**	**$30,460**	**$84,530**	**880**	**181**	**146**
Total Savings:	**423,704**	**$33,769**	**$93,713**	**976**	**201**	**162**

South Carolina Energy Office

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www.energy.sc.gov